

Work Order ID 132311

Wednesday, May 06, 2015 1:41:00 PM

re-print
D 4822-2
B 132311
RBA-C

132311

replacement part (X1)

JUN 16 2015

Page 1

Item ID: D4822-2

Revision ID:

Item Name: Upper Right Deflector

Start Date: 5/6/2015 Start Qty: 2.00

Required Date: 5/6/2015 Req'd Qty: 2.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: ML5 Date: MAY 06 2015 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4822	C								

100 0.00

100

Bandsaw

Memo

0.00

Jeaspa Bandsaw

CUT AT 32.00" LONG

CY MAR 12 2015 2

110 0.00

110

Outsource5

Memo

0.00

Outsource process - Machining

ISSUE P/O: 28448
POSSIBLE SUPPLIER: WEJAY

Certificate of conformity required

1X SP15-06-01

115 0.00

115

Packaging

Memo

0.00

Packaging

Receive & Inspect for Damage & Mat'l Certs

SP. 1X SP15-06-16
JUN 01 2015

1X SP15-06-16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : _____			

Work Order ID 132311

Wednesday, May 06, 2015 1:41:00 PM

132311

Page 2

Item ID: D4822-2

Revision ID:

Item Name: Upper Right Deflector

Start Date: 5/6/2015 Start Qty: 2.00 *2*

Required Date: 5/6/2015 Req'd Qty: 2.00 *2*

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
117	QC6- Inspect dimensions to drawing	0.00							
117									
QC	Memo	0.00				1			DAS 38 9-89
Quality Control						①			JUN 01 2015 9-89 JUN 17 2015
120		0.00							
120									
Outsource4	Memo	0.00							
Outsource process - Anodize	HARD ANODIZE IAW MIL-A-8625 TYPE 3 COLOUR BLACK								
	PRIME AS PER DWG NOTE #2								
122	QC14- Inspect Spray Paint	0.00							
122									
QC	Memo	0.00							
Quality Control									DAS 38 9-89 JUN 05 2015

DAS
38
9-89

AUG 05 2015

1X 8015-07-28

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Work Order ID 132311

Wednesday, May 06, 2015 1:41:00 PM

132311

Page 3

Item ID: D4822-2

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Upper Right Deflector

Stop

NS2

Start Date: 5/6/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 5/6/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
140									
QC	Memo	0.00							
Quality Control									JUN 05 2015
170	Identify as per dwg & Stock Location: CCK056	0.00							DAS 27 9-89
170									
Packaging	PP132306	0.00							① JA. 2 (N) 6
Packaging	Memo								AUG 05 2015
									JUN 05 2015
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							MWJ
Quality Control									JUN 05 2015

15-6-5
15-8-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Wednesday, May 06, 2015 1:41:04 PM

Page 1

Work Order ID: 132311

132311

Parent Item: D4822-2

D4822-2

Parent Item Name: Upper Right Deflector

Start Date: 5/6/2015

Required Date: 5/6/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A NEW ISSUE 13-04-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4822-2P		Purchased	No				Each	0.0000		2			
D4822-2P									**				
Upper Right Deflector													
M7075T6B4.000X4.000		Purchased	No				f	8.0000		6			
M7075T6B4 000X4 000									**				
7075-T6 BAR 4.000" X 4.000"													

Location

Loc Qty

Loc Code

ST024

8

m131552

8

m132323

X-5.3333

1X SP15-07-28

1X SP15-06-01
1X SP15-06-16
02/15/05/20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				OTHER :							

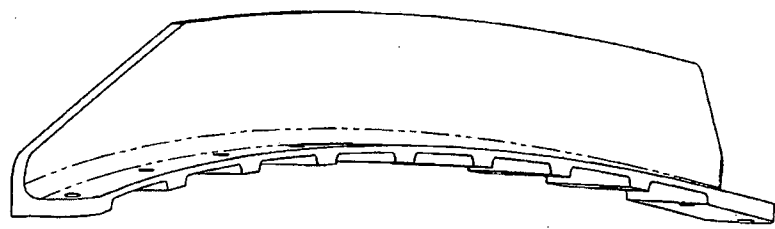
8 7 6 5 4 3 2 1

D

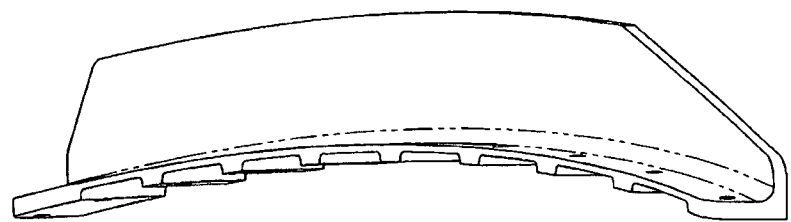
C

B

A



D4822-1 UPPER DEFLECTOR LH



D4822-2 UPPER DEFLECTOR RH

STANDARD

132311 MAY 06 2015
ML5

D

C

B

A

8 7 6 5 4 3 2 1

RELEASED

2014 FEB 25
ECW 19-516

REV.	DESCRIPTION	BY	DATE
C	DRAWING REVISED TO NEW CUSTOMER CAD DATA, RIVET HOLES ADDED	DB	14.02.04
B	CORRECTED WEIGHT	DW	13.09.24
A	NEW RELEASE	DB	13.05.23
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
DATE	14.02.04	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SHOWN ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMPILED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____



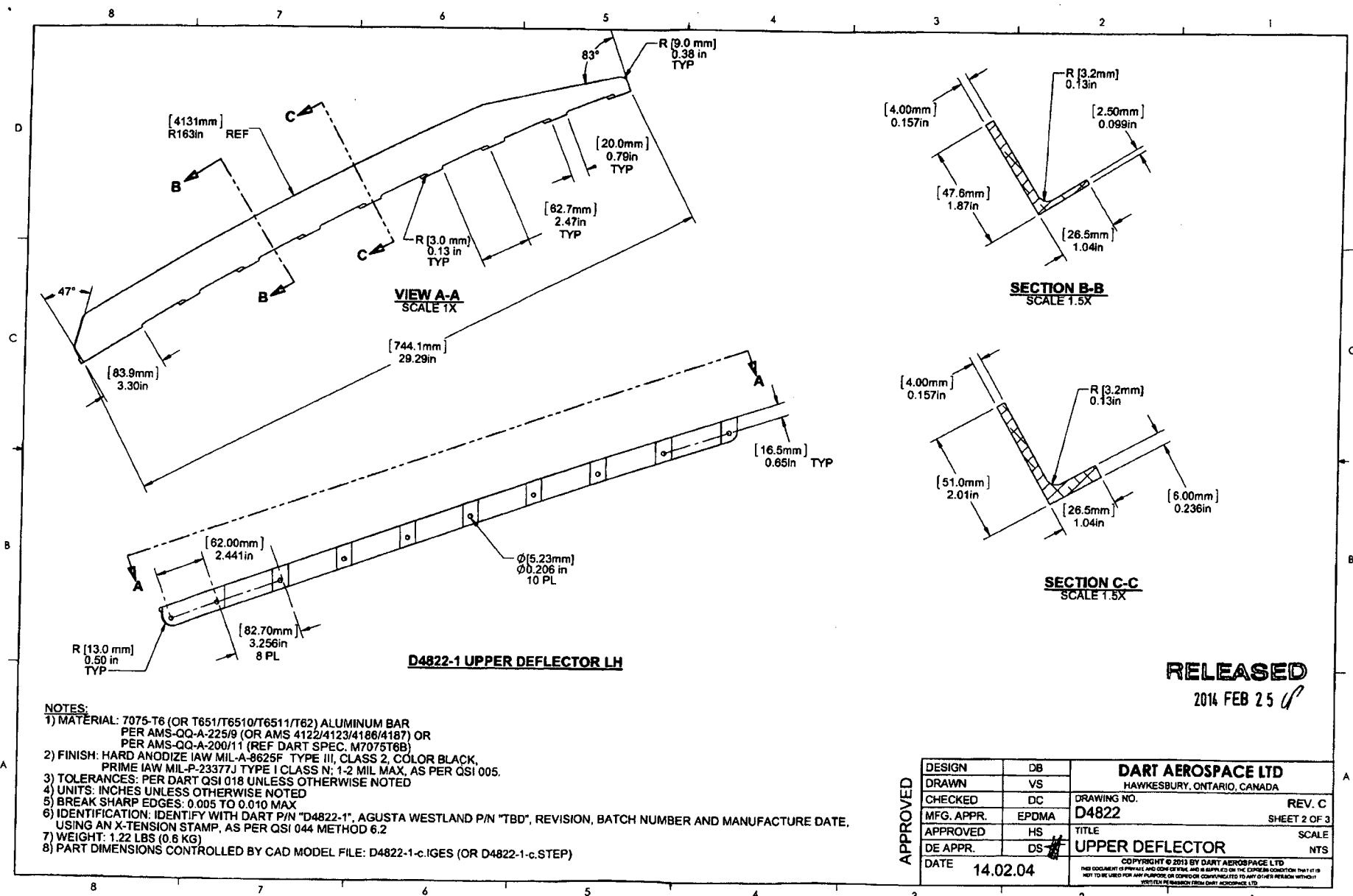
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				OTHER : _____			



RELEASED

2014 FEB 25

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 2 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
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DQA: _____ Date: _____

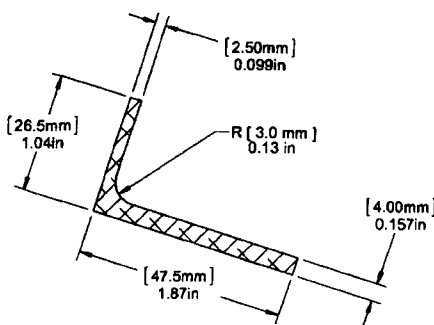


WORK ORDER NON-CONFORMANCE / UPDATE

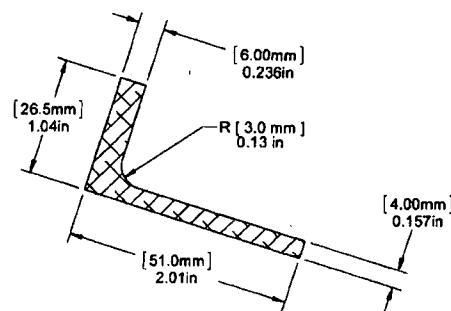
QA Closed: _____ Date: _____

Work Order update only ☐

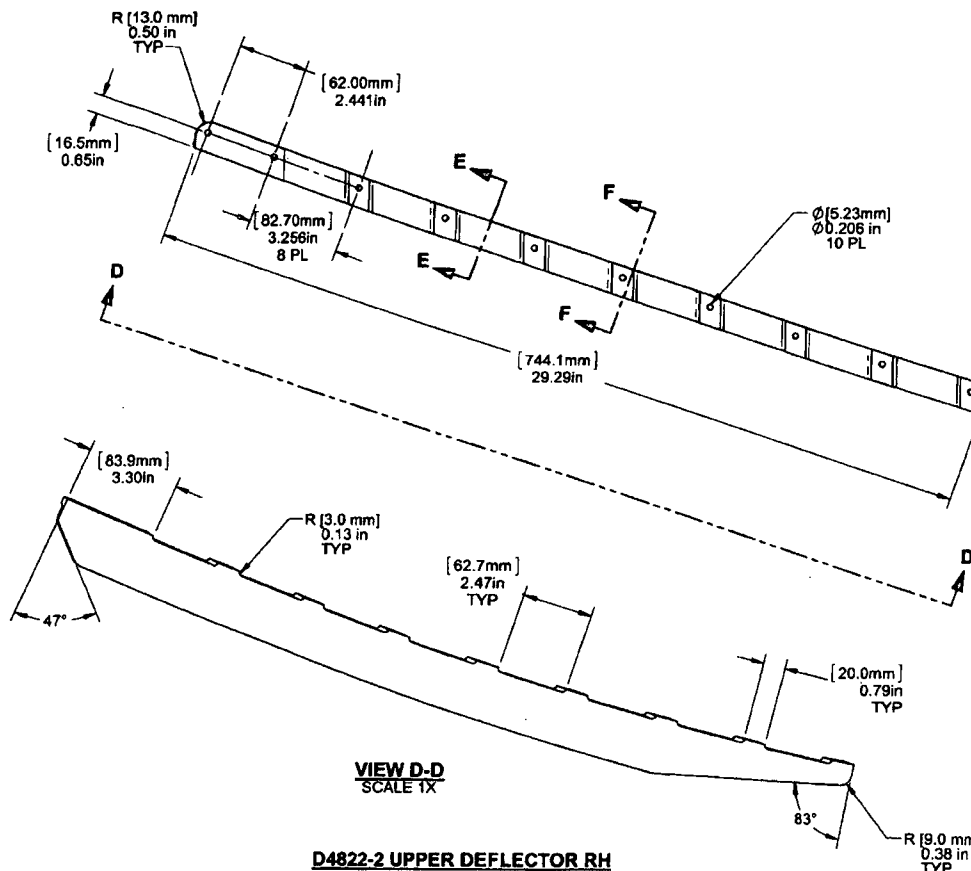
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				OTHER : _____							



SECTION E-E
SCALE 2X



SECTION F-F
SCALE 2X



VIEW D-D
SCALE 1X

D4822-2 UPPER DEFLECTOR RH

RELEASED
2014 FEB 25

NOTES:

- 1) MATERIAL: 7075-T6 (OR T651/T6510/T6511/T62) ALUMINUM BAR
PER AMS-QQ-A-225/9 (OR AMS 4122/4123/4186/4187) OR
PER AMS-QQ-A-200/11 (REF DART SPEC. M7075T6B)
- 2) FINISH: HARD ANODIZE IAW MIL-A-8625F TYPE III, CLASS 2, COLOR BLACK,
PRIME IAW MIL-P-23377J TYPE I CLASS N: 1-2 MIL MAX, AS PER QSI 005.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4822-2", AGUSTA WESTLAND P/N "TBD", REVISION, BATCH NUMBER AND MANUFACTURE DATE,
USING AN X-TENSION STAMP, AS PER QSI 044 METHOD 6.2
- 7) WEIGHT: 1.22 LBS (0.6 KG)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: D4822-2-c.IGES (D4822-2-c.STEP)

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 3 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	UPPER DEFLECTOR	NTS
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

OUTSTANDING PO REPRINT

Purchase Order ID PO28448

Purchase Order Date 5/12/2015

PO Print Date 6/16/2015

Page Number 1 of 1

Order From : VC-WMP001
WEJAY MACHINE PRODUCTS CO. LTD
600 O'CONNOR DRIVE
KINGSTON, ONTARIO K7P 1N3
CANADA

Ship To : DART AEROSPACE LTD
1270
ABERD
EEN
HAWKE
SBURY,
ON
K6A
1K7
CANAD
A

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	613-384-1662	Customer POID	
Vendor Fax	613-384-2997	Customer Tax #	10127-2607
Ship To Contact		Terms	COD
Ship To Phone		Currency	CAD
Ship Method	—	FOB	Destination-Collect
Ship Acct			

Line Nbr	Item ID Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Extended Price
2	D4822-2P AS PER DWG D4822 REV. C B132311 replacement part	Upper Right Deflector	6/17/2015 Yes 6/17/2015	1.00 Each ✓	\$1,440.00

Line Total: \$1,440.00

Outstanding PO Total: \$1,440.00

PO Instructions: QUOTE: WJ-8375

Change Nbr: 4

Change Date: 6/16/2015

Terms & Condition of
Purchasing(Suppliers) and
Procurement Quality Clauses are an
integral part of our AS9100



Packing Slip 373574

600 O'CONNOR DRIVE, KINGSTON, ONTARIO K7P 1N3
TEL: 613-384-1662 FAX: 613-384-2997
www.wejay.com

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D
T
O
Dart Aerospace
1270 Aberdeen Street
Hawkesbury ON K6A 1K7

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Dart Aerospace
1270 Aberdeen Street
Hawkesbury ON K6A 1K7

INVOICE DATE	YOUR ORDER NO. P028448	DATE ORDERED 05/12/15	SHIPPED VIA FedEx
CUSTOMER CODE	PROV. LIC. NO.	Extra ☐ Exempt ☐	TERMS

QUANTITY ORDERED	B.O.	QUANTITY SHIPPED	DESCRIPTION	UNIT PRICE	AMOUNT
		N	Upper right hand deflector as per drawing D4822, Rev. C ID: D4822-CP B132311		
SP/5-06-16 RELEASE NOTE I certify that the items listed hereon have been inspected and tested and conform to all specifications and requirements in the contract or purchase order. Inspection Supervisor <u><i>[Signature]</i></u> WMP 03 JUNE 9/15					

ORDER: COMPLETE ☐ PARTIAL ☐

TOTAL

RECEIVED BY _____
5% PER MONTH (18% PER ANNUM)
CHARGED ON OVERDUE ACCOUNTS

NO GOODS RETURNED WITHOUT
PRIOR AUTHORIZATION



600 O'CONNOR DRIVE, KINGSTON, ONTARIO K7P 1N3

PHONE: (613) 384-1662

FAX: (613) 384-2997

CERTIFICATE OF COMPLIANCE

CUSTOMER: DART Aerospace	DATE: June 9, 2015		
	P.O.# PO28448		
	WEJAY JOB# 37357A		
I hereby certify that the following material has been inspected/tested and conforms to the requirements and specifications as stated in your contract and as noted below. Any exceptions will be listed as NCR items.			
PART NO.	QTY.	PROCESS (ES)	SPECIFICATION / REV
D4822-2 'Right Hand Deflector' B132311	1	Machined complete per drawing req'ts.	D4822 /rev. C
Note: 1) Material Test Report attached ref. 'Thyssenkrupp Materials' Lot# 9307921. (supplied by 'DART'). 2) Inspection Test Reports attached.			

Records of Inspection/Test will be retained for 5 years minimum.

Yours truly,

Clifford Smith
Authorized Q.A. Signatory

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLATE 7075-T651
4.00" THICK X 4.0000" X 32.0000"
PART NO.

PO/Rel 284449

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-934403-001

13 May 15

Signed by: _____ Pg 1/2



Constellium



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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THYSSENKRUPP CA
2821 LANGSTAFF ROAD
CONCORD ON
L4K 5C6
CA

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THYSSENKRUPP CA
2821 LANGSTAFF ROAD
CONCORD ON
L4K 5C6
CA

PECKOVERS		110283598		4075		INCLUSION		Serial: 20150208-0110283598		Pg 1 of 2	
CUSTOMER PURCHASE ORDER NO. & ITEM PEC-262917						Constellium ORDER NO. 126401					
ALLOY 7075	CLAD	TEMPER T651	GUAGE 4.00000 in	WIDTH 48.50000 in	LENGTH 144.50000 in	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION ASTM B209-14											
PART NUMBER			B/L NUMBER 36663		DATE SHIPPED 02/08/2015						
WT. SHIPPED 8715.000 LB		NO. OF PIECES 000003		GOV'T. CONTRACT NO.							

ALL LOTS ON THIS CERTIFICATION CONFORM TO THE FOLLOWING REQUIREMENTS:

AMS 4045K
AMS QQ-A-250/12A

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1000979695	8,715.000	3,953.054	9307921	01		
1000979695	8,715.000	3,953.054	9307921	02		
1000979695	8,715.000	3,953.054	9307921	03		

Lot: 9307921

Tensile Test (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)	
		Min	Max	Min	Max	Min	Max
LT	02	72.2	73.1	58.9	60.2	12	12.5

Tensile Test (SI)

Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)	
		Min	Max	Min	Max	Min	Max
LT	02	498	504	406	415	12	12.5



REF: DART' PO# P028448
WEM/T08#37357

P-880-155D REVISED: 10 2014

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLATE 7075-T651
4.00" THICK X 4.0000" X 32.0000"
PART NO.

PO/Rel 284449

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-934403-001

13 May 15

Signed by: _____ Pg 2/2



Constellium



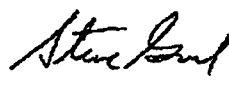
CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

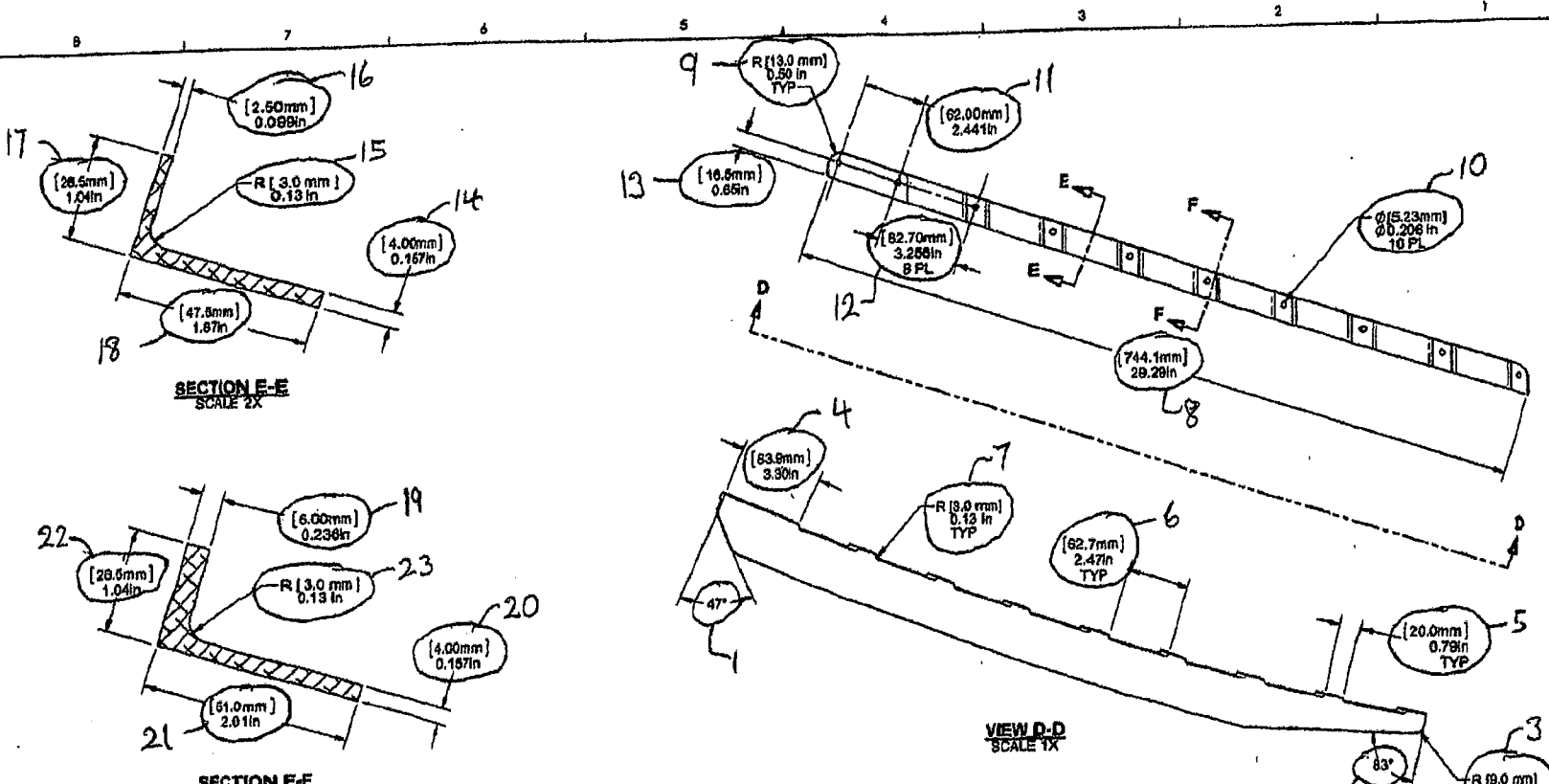
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CONCORD ON
L4K 5C6
CA

PECKOVERS		110283598		4075		INCLUSION		Serial: 20150206-0110283598		Pg 2 of 2	
CUSTOMER PURCHASE ORDER NO. & ITEM PEC-262917						Constellium ORDER NO. 126401					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in	WIDTH 48.50000 in	LENGTH 144.50000 in	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION ASTM B209-14											
PART NUMBER			B/L NUMBER 36663		DATE SHIPPED 02/06/2015						
WT. SHIPPED 8715.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.							
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.08	0.09	1.42	0.01	2.53	0.19	5.58	0.02	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: EAR99-NLR											
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; 8557 DUNS Number: 090570149; CAGE Code: 1YWLS Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"											
P-880-155D REVISED: 10 2014											



NOTES:

- 1) MATERIAL: 7075-T6 (OR T851/T8510/T8611/T862) ALUMINUM BAR
PER AMS-QQ-A-225/8 (OR AMS 4122/4123/4180/4187) OR
PER AMS-QQ-A-200/11 (REF DART SPEC. M7075T88)
- 2) FINISH: HARD ANODIZE IAW MIL-A-8626F TYPE III, CLASS 2, COLOR BLACK,
PRIME IAW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX, AS PER QSI 005.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4822-2" AGUSTA WESTLAND P/N "TBD", REVISION, BATCH NUMBER AND MANUFACTURE DATE,
USING AN X-TENSION STAMP, AS PER QSI 044 METHOD 8.2
- 7) WEIGHT: 1.22 LBS (0.6 KG)
- 8) PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: D4822-2-C.IGES (D4822-2-C.STEP)

DESIGN	DB	DART AEROSPACE LTD	
DRAWN	YB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DC	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4822	SHEET 3 OF 3
APPROVED	HB	TITLE	
DE APPR.	DS	UPPER DEFLECTOR	
DATE	14.02.04	SCALE	
		NTB	

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THE WRITTEN PERMISSION OF DART AEROSPACE LTD



600 O'CONNOR DRIVE
KINGSTON, ONTARIO
K7P 1N3

INSPECTION / TEST REPORT

JOB No. 37357A

PAGE: 1 of 1

CUSTOMER: Dart Aerospace

CUST. P.O.# PO28448

PART No. D4822-2

DESCRIPTION: Deflector Right Hand

DWG No. D4822

REV. C

E.C.O. --

MATERIAL: Dart supplied- Alum. alloy 7075-T651
Rec'd from 'Thyssenkrupp Materials'
Ref. Lot# 9307921

INSPECTOR: Cliff Smith

QUANTITY
REC'D: 1

ACCEPT:
1

REJECT:
-

N.C.R.#
-

DATE: June 9, 2015



INSTRUCTIONS, COMMENTS: Standard Tolerances per DART QSI 018 unless otherwise noted

ITEM REF. No.	CHARACTERISTIC (DIMS IN mm)	DETAILS	TOLERANCE	DWG SHT/ZONE	RESULT	QTY. INSP.	COMMENTS (ACC. REJ. REW. NMR #)
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1	47°	View D-D	±.5°	3/B5	47°	1	Accepted
2	83°		±.5°	3/B2	82.5°	1	Accepted
3	R 0.38" typ.		±.03	3/B1	R .38 typ.	1	Accepted
4	3.30"		±.03	3/C5	3.300	1	Accepted
5	0.79" typ.		±.03	3/B1	.785/ .790	1	Accepted
6	2.47		±.03	3/B3	2.465/ 2.473	1	Accepted
7	R 0.13 typ.		±.03	3/C4	R .125 typ.	1	Accepted
8	29.29"		±.03	3/C3	29.29	1	Accepted
9	R0.50" typ		±.03	3/D5	R .38 typ.	1	Accepted
10	Ø0.206 hole thru	10 pl.	+0.005/ -.001	3/D1	.208/ .209 typ.	1	Accepted
11	2.441"		±.010	3/D4	2.442	1	Accepted
12	3.256" typ.	8 pl.	±.010	3/D4	3.255/ 3.257	1	Accepted
13	0.65" typ.	10 pl.	±.03	3/D5	.650/ .655	1	Accepted
14	0.157"	Section E-E	±.01	3/D6	.159/ .161	1	Accepted
15	R0.13" typ.		±.03	3/D7	R .188 typ.	1	Accepted
16	.099"		±.01	3/D7	.103/ .107	1	Accepted
17	1.04"		±.03	3/D8	1.045/ 1.047	1	Accepted
18	1.87"		±.03	3/C7	1.874/ 1.875	1	Accepted
19	0.236"	Section F-F	±.01	3/C7	.240/ .243	1	Accepted
20	0.157"		±.01	3/B6	.159/ .161	1	Accepted
21	2.01"		±.03	3/B7	2.012/ 2.013	1	Accepted
22	1.04"		±.03	3/B8	1.045/ 1.047	1	Accepted
23	R0.13"		±.10	3/B7	R .188 typ.	1	Accepted
24	Deburring	Per note 5	.005-.010	3/A8	Passed	1	Accepted
25	Identification	Per note 6		3/A8	Tagged with Pt#	1	Accepted



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

OUTSTANDING PO REPRINT

Purchase Order ID PO28906

Purchase Order Date 6/22/2015

PO Print Date 7/28/2015

Page Number 3 of 4

Order From : VC-ATG001

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

Ship To : DART AEROSPACE LTD

1270
ABERD
EEN
HAWKE
SBURY,
ON
K6A
1K7
CANAD
A

Contact Name
Vendor Phone 613-446-4544
Vendor Fax 613-446-4556
Ship To Contact
Ship To Phone

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Ship Method VENDOR'S TRUCK
Ship Acct

Line Nbr	Item ID Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Extended Price
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4	132311	D4822-2 UPPER RIGHT DEFLECTOR REV. C	7/28/2015 Yes	1.00 ✓	\$30.00
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7/28/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2
PRIME: AS PER IAW MIL-P-23377J TYPE I, CLASS N

SP 15-07-28

Line Total: \$30.00

5	133166	646.3210 SUPPORT REV.N/C	7/28/2015 Yes	4.00 ✓	\$57.40
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7/29/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2
PRIME: AS PER IAW MIL-P-23377J TYPE I, CLASS N

SP 15-07-28

7/28/2015



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63845

Date: 28-Jul-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

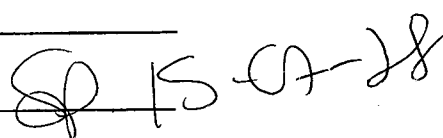
DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
	PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150582 PO: PO28906 Line:		
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE: <u>28/7/15</u> CERTIFIED SIGNATURE: <u></u> RECEIVER SIGNATURE: <u></u>			